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# East Riding of Yorkshire Council

## Affordable Housing Viability Assessment

Summary Report



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## 1.0 The Study Brief

1.1 DTZ has been commissioned by the East Riding of Yorkshire Council (ERYC) to carry out a financial viability assessment of the delivery of affordable housing across the area. The work has been undertaken to inform the development of policy for affordable housing provision to be contained in the Council's LDF Core Strategy and to satisfy the requirement set out in PPS3: Housing that affordable housing targets and thresholds should take into account the impact that these may have on the economic viability of development schemes. This report is a summary report which provides headline figures only, a fuller report providing detailed results for each market area is available upon request for East Riding of Yorkshire Council.

### **Affordable Housing Policy Objectives**

1.2 In devising an affordable housing policy ERYC is seeking to achieve a number of different objectives which are common to most affordable housing viability assessments and the interpretation of their results:

- To devise policy in such a way that landowners are sufficiently incentivised to bring forward proposals for residential development
- To devise policy that will maintain the pipeline of new housing developments to ensure provision of new homes
- ERYC has a very substantial requirement for affordable housing and wishes to maximise the provision of new affordable homes
- The desire to foster mixed communities and to ensure a reasonable mix of incomes and ages within local neighbourhoods

1.3 Delivery of this mix of policy objectives has always been challenging and the current economic environment makes this even more so.

1.4 A growing proportion of affordable housing is delivered via Section 106 Agreements. It is increasingly important therefore that local authority housing policy is realistic and credible, taking into account the local housing market, house prices, supply, demand and need issues. Hence this viability study sits alongside any research of housing need which the authority has undertaken previously, and forms part of the evidence base which informs the affordable housing target requirement for the East Riding of Yorkshire area.

- 1.5 An assessment of housing need across an area does not consider the impact of affordable housing policies on development viability. The purpose of this affordable housing economic viability assessment work is therefore to ensure that the proposed policy for affordable housing is not so onerous that it prevents sites from coming forward and stifles development of, not only affordable, but also open market housing.

### **The Study Approach**

- 1.6 At the core of the study approach is a detailed viability modelling exercise. This examines the impact on viability of different affordable housing contributions upon hypothetical development schemes in different parts of the study area. It has therefore, been necessary to develop a typology of different types of sites that are likely to come forward for housing development across the East Riding area and to test the viability of these hypothetical sites under a set of different development scenarios.
- 1.7 The modelling runs a cash flow analysis of each of the hypothetical schemes under each development scenario. More information on the model is presented in Section 2 of the report, including details of the way the model works, its key assumptions and its operation.
- 1.8 The balance of this summary report is structured as follows:
- **Section 2** presents the **model structure** its operation and assumptions
  - **Section 3** sets out the results of the **base case modelling**
  - **Section 4** presents an assessment of threshold analysis
  - **Section 5** presents summary results and DTZ's **conclusions** from the analysis of these results.
- 1.9 More detailed results and explanations can be seen in the main report



## 2.0 Viability Model Workings and Assumptions

2.1 This section of the report provides an overview of the structure of the viability model and the assumptions it uses.

### Model Targets – What defines Viability?

2.2 The model is based on the principles of Argus Circle Developer a software package specifically designed for undertaking development valuations. Argus developer works on the principles of the residual method of valuation which in its simplest form follows the following equation below.

Development Revenue (Value)

MINUS

Development Cost

MINUS

Profit (Return)

EQUALS

Land Value

2.3 To the equation above time is factored in to result in a development cashflow calculation of value. These principles have been translated into a bespoke Excel based model specifically designed to undertaken the assessment of a number of sites at once for the purpose of completing an affordable housing viability assessment. The DTZ model, defines viability by the achievement of a target Internal Rate of Return (IRR). The IRR is the discount rate needed to reduce the Net Present Value (NPV)<sup>1</sup> of a particular scheme to zero, this is a common practice in the development industry.

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<sup>1</sup> The net present value of a scheme is the sum of the present values of the individual amounts in the new income stream. Each future net income amount in the stream is discounted, meaning that it is divided by a number representing the opportunity cost of holding capital from now (year 0) until the year when income is received or the outgoing is spent. In the model the discount rate is currently set at an industry standard rate of 9%.

- 2.3 For the purposes of this assessment, the IRR target – which is the requirement for a scheme to be deemed viable – is set at 20% (though this can be varied within the model). The model also measures scheme profitability, as defined by scheme surplus divided by scheme cost (profit on cost) and scheme surplus divided by scheme revenue (profit on GDV). This differs from the IRR approach as it does not use a discount rate to attach a ‘worth’ to when costs or revenues arise. Nevertheless, it still provides a useful measure of profitability which many developers use to decide whether a scheme is viable.
- 2.4 Whilst each method is calculated by the model, for the purposes of this study we focus upon the target IRR to establish whether a scheme is viable, given that differential sales rates over time and the impact on scheme finances have an important impact on scheme viability, especially in the current market where development timescales have increased. As well as examining different rates of return across schemes, the model calculates the residual land values associated with the target rate of return and whether this is above alternative use values.

### **Approach**

- 2.5 DTZ has adopted a staged approach in assessing the financial viability and impact of different affordable housing options.

**Stage 1** involved market research to determine key model inputs. The selection of development scenarios to be examined and selection of hypothetical sites was also undertaken.

**Stage 2** agreed the modelling inputs and scenarios with ERYC and consulted on these with key stakeholders. Following consultation, assumptions were altered where appropriate to reflect stakeholders comments (see Appendix 1 on main Report)

**Stage 3** involved a series of modelling to test the viability of development on different hypothetical sites, and how this would be affected by the application of different requirements for affordable housing.

- 2.6 The study approach is tailored to the specific requirements and circumstances of the ERY area. It takes account of a range of circumstances applied across the study areas but does not seek to capture analysis of the specific circumstances of individual housing sites in the study areas. To do this would have been impossible in practical terms and inappropriate to a strategic study designed to inform policy development.

2.7 By implication, this study does not analyse viability on specific housing sites that may come forward in the future. There will always be a wide range of specific circumstances that will affect viability on particular sites, and developers will assess these in determining whether to proceed. In addition, developers are not homogenous and what this strategic study has to do, in order to produce meaningful results, is to homogenize assumptions across the area to enable the variable of delivering affordable housing to be varied. If all other variables were not fixed the impact of affordable housing requirements could not be properly assessed. Developer's appetites for risk vary, and they have different requirement in terms of returns. Abnormal development costs are extremely site and developer specific and a developers approach to development may change in different market circumstances and different market areas and it is impossible to capture this level of variance in a strategic policy appraisal.

### **Model Inputs**

2.8 The Key variable assumptions that have been used for testing viability in the model are as follows:

- Market Area
- Site Size
- Density
- Dwelling Mix
- Revenues
- Costs

2.9 The results below are the final assumptions inputted into the model and have been altered to reflect stakeholder feedback. For analysis of the movement between the original assumptions and those used for the modelling, please see appendix 1 of main report.

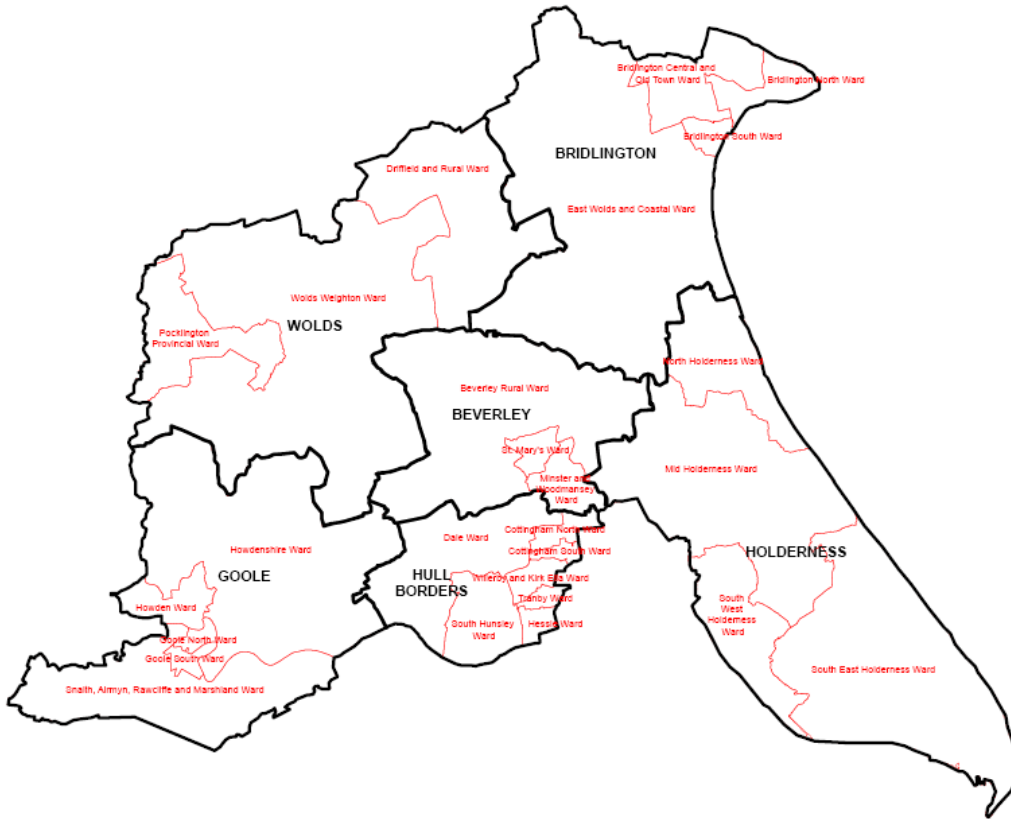
2.10 The model is structured on the basis of a time series cash flow for a particular development. The main input into the model is the configuration of the scheme, in terms of the number of dwellings, density, dwelling mix (size type and tenure) and disposal period. The hypothetical schemes which have been selected reflect a representative range of different sites across the ERY area.

2.11 A key driver of development viability is the sales value that can be achieved on new schemes. Higher sales values produce greater revenue streams, thus improving margin if costs are key constant. However, in practice competitive bidding for land means that a development in a

high value area is often no more profitable than that in a lower value area, as higher revenues are offset by higher land costs (thereby keeping land values at the same level).

- 2.12 An important part of the viability modelling is therefore to capture how sales values (and by implication land values) vary across the East Riding of Yorkshire (ERY). In order to do this we have identified distinct geographies and market areas, which we refer to as 'value geographies'.
- 2.13 Sales values and land values are substantially different across the ERY. The identification of the spatial extent of value geographies has been determined through analysis of Hometrack residential sales value data and interpretation of this by DTZ and the client. It was decided that in order for this study to line up with that of the rest of the suite of documents provided to form the Housing Need Evidence Base, that the market areas identified in The Housing Need and Market Assessment (Atkins 2007) would be followed.
- 2.14 A brief overview of each of the market areas is provided below and represented graphically in Figure 2.1:
1. Beverley: consists of St Mary's, Minster & Woodmansey and Beverley Rural wards.
  2. Bridlington: consists of East Wolds & Coastal, Bridlington Centre & Old Town, Bridlington North and Bridlington South wards.
  3. Goole: consists of Goole North, Goole South, Howden, Howdenshire, Snaith, Airmyn & Rawcliffe and Marshland wards.
  4. Holderness: consist of Mid Holderness, North Holderness, South East Holderness and South West Holderness wards.
  5. Hull Borders: consists of Cottingham North, Cottingham South, Dale, Tranby, Hessle, Willerby & Kirk Ella and South Hunsley wards.
  6. Wolds: consists of Pocklington Provincial, Wolds Weighton and Driffield & Rural wards.





**Figure 2.1 Map of ERY Market Areas ‘Value Geographies’ relevant to this study.**

2.15 For each of the market areas, it was determined that small, medium, large and extra large sites would be tested in order to ensure that a range of developments are analysed. Based on analysis of the SHLAA and consultation with ERYC and its stakeholders, the following site sizes were agreed for each of the market areas.

<b>Beverley</b>	Small Sites	0.5 ha
	Medium Sites	1.5ha
	Large Sites	3 ha
	Extra Large Sites	12 ha
<b>Bridlington</b>	Small Sites	0.5 ha
	Medium Sites	1.5ha
	Large Sites	3 ha
	Extra Large Sites	12 ha



<b>Goole</b>	Small Sites	0.5 ha
	Medium Sites	1.5ha
	Large Sites	3 ha
	Extra Large Sites	9 ha
<b>Holderness</b>	Small Sites	0.5 ha
	Medium Sites	1.5ha
	Large Sites	3 ha
	Extra Large Sites	not applicable – analysis of the SHLAA showed very low numbers of sites over 3ha in this area
<b>Hull Borders</b>	Small Sites	0.5 ha
	Medium Sites	1.5ha
	Large Sites	3 ha
	Extra Large Sites	20 ha
<b>Wolds</b>	Small Sites	0.5 ha
	Medium Sites	1.5ha
	Large Sites	3 ha
	Extra Large Sites	9 ha

2.16 As can be seen above, the variance between market areas comes in the extra large sites sizes. Based upon the analysis of the SHLAA, it is clear that the variance in largest sites was far greater across areas than with other site sizes and therefore this has been reflected accordingly.

2.17 For each of these sites it was agreed that High, Medium and Low density would be assessed. The density assumptions are expressed as dwelling per hectare (dph) as follow:

<b>High Density</b>	40 dph
<b>Medium Density</b>	35 dph
<b>Low Density</b>	30 dph

2.18 It was determined that densities did not need to vary according to location and given the mainly rural makeup of the ERYC area, these densities were appropriate for both Greenfield and brownfield development. This therefore, gives a total number of 69 hypothetical sites which have been tested during this modelling as follows:



	Small Site			Medium Site			Large Site			Extra Large Site		
	High Density	Medium Density	Low Density	High Density	Medium Density	Low Density	High Density	Medium Density	Low Density	High Density	Medium Density	Low Density
<b>Beverley</b>	BSHD	BSMD	BSLD	BMHD	BMMD	BMLD	BLHD	BLMD	BLLD	BELHD	BELMD	BELLD
<b>Bridlington</b>	BRSHD	BRSMMD	BRSLD	BRMHD	BRMMD	BRMLD	BRLHD	BRLMD	BRLLD	BRELHD	BRELMD	BRELLD
<b>Goole</b>	GSHD	GSMD	GSLD	GMHD	GMMMD	GMLD	GLHD	GLMD	GLLD	GELHD	GELMD	GELLD
<b>Holderness</b>	HSHD	HSMD	HSLD	HMHD	HMMMD	HMLD	HLHD	HLMD	HLLD	N/A	N/A	N/A
<b>Hull Borders</b>	HBSHD	HBSMD	HBSLD	HBMHD	HBMMD	HBMLD	HBLHD	HBLMD	HBLLD	HBELHD	HBELMD	HBELLD
<b>Wolds</b>	WSHD	WSMD	WSLD	MWMHD	WMMD	WMLD	WLHD	WLMD	WLLD	WELHD	WELMD	WELLD

**Figure 2.2 Hypothetical Sites.**

2.19 Once the hypothetical sites are decided upon, the other major inputs into the model are the assumptions around costs and values. Detailed work has been undertaken in respect of both of these aspects as outlined below.

**Revenue (£ per sqft) by unit type, size and tenure**

2.20 For the **market** housing an average £ per sqft values is calculated for high, medium and low value areas within each of the market areas. In order to do this, each market areas was given Beacon settlements and wards which would act as the basis upon which research was undertaken in order to determine property value. For each of the wards (Super output areas) review of both the Hometrack Data and Land Registry was undertaken in order to determine likely values for residential property in the market areas. The Hometrack Data represents a mix of new build and existing dwelling prices. DTZ’s residential valuation team reviewed this data and adjusted the values according to valuation evidence and their experience of purely new build prices in each of the market areas. The results of this analysis were then drawn together to produce a list of revenues which were subsequently tested with Stakeholders. During the initial analysis it became clear that the Hometrack Data for ERYC is easily skewed in a number of areas due to the sale of one off, large properties which increase overall averages and are not a true reflection of the new build market. Following stakeholder consultation,

and further analysis, DTZ revised their original expectations for revenues in the area downwards. As the viability model required new build prices and new build properties are typically smaller than properties exchanging hands in some market areas then this also skewed the original figures.

2.21 Therefore the final values used within the modelling were as follows:

Market Area	DTZ Original Value psf	Final Assumption following Feedback Value psf	% Move
Beverley High	£237	£200	-16%
Beverley Medium	£199	£175	-12%
Beverley Low	£174	£150	-14%
Bridlington High	£198	£180	-9%
Bridlington Medium	£161	£160	-0.6%
Bridlington Low	£146	£140	-4%
Goole High	£183	£170	-7%
Goole Medium	£164	£150	-8.5%
Goole Low	£146	£135	-7.5%
Holderness High	£195	£170	-8%
Holderness Medium	£175	£150	-14%
Holderness Low	£148	£130	-12%
Hull Borders High	£267	£200	-33.5%
Hull Borders Medium	£219	£155	-29%
Hull Borders Low	£184	£140	-24%
Wolds High	£225	£200	-10%
Wolds Medium	£189	£160	-15%
Wolds Low	£159	£140	-12%

**Figure 2.3 Analysis of House Prices Used in Modelling.**

2.22 In some market areas, this shows considerable deflation from DTZ's original opinion of value but based on further evidence provided by stakeholders – in particular by house builders of their actual achieved sales, the figures above are now felt to be more appropriate. In particular, the evidence provided by Hometrack in the Hull Borders was significantly skewed due to the sale of large detached properties in rural areas with large grounds which, when the sales values were attributed to smaller floor areas for the purposes of this appraisal, resulted in higher £psf.

2.23 The individual beacon areas used during the Hometrack, Land Registry and additional evidence provided from stakeholders were as follows:

Areas	High Value	Medium Value	Low Value
<b>Bridlington</b>	East Wolds & Coastal	Bridlington North; Brid Central & Old Town	Bridlington South
<b>Beverley</b>	Beverley Rural	St Mary's	Minster & Woodmansey
<b>Goole</b>	Howden; Howdenshire	Snaith, Aimyn & Marshland	Goole South; Goole North
	Howden, Barmby-on-the-Marsh	Snaith; Rawcliffe; Holme upon Spalding Moor	Old Goole, Shuffleton
<b>Holderness</b>	Mid Holderness	North Holderness	South East Holderness
	Burton Pidsea; Seaton; Siggleshorne; Burstwick	Hornsea	Withernsea
<b>Hull Borders</b>	Dale	Hessle, Willerby & Kirk Ella	Cottingham South
	Swanland; Kirk Ella	Willerby; Anlaby	Cottingham South
<b>Holderness</b>	Mid Holderness	North Holderness	South East Holderness
	Burton Pidsea; Seaton; Siggleshorne; Burstwick	Hornsea	Withernsea
<b>Wolds</b>	Pocklington Provincial	Wolds Weighton	Driffield and Rural
	Pocklington; Wilberfoss; Stamford Bridge	Market Weighton; Middleton on the Wolds	Parts of Driffield

**Figure 2.4 Beacon areas used for House Price Analysis. Blue represent Wards and Green Represent Settlements.**

2.24 For the revenue streams generated by the **affordable** housing, we have applied a proportion to the market value of a unit which a developer would receive for a comparable unit of affordable housing with and without grant payment. The base case modelling assumes that grant is not available.

- 2.25 DTZ’s experience is that, on average and on a like for like basis, a developer would receive around 35% of market value for a social rented units and 65% of market value for an intermediate units (without grant). With grant, the figure on average rises to 55% of market value for a social rented unit and 80% on an intermediate unit (an increase of between 15 and 20%. This is presented using a simple illustration below.

**Figure 2.5 Generation of Affordable Value Using Proportionate Approach**

	Without Grant (%)	With Grant (%)	Without Grant (£)	With Grant (£)
Market Value of Apartment (£ psf)	100%	100%	£100	£100
Intermediate Value of Apartment (£ psf)	65%	80%	£65	£80
Social Rented Value of Apartment (£ psf)	35%	55%	£35	£55

### Unit Area Assumptions

- 2.26 The £ per square values (both market and affordable) are combined with assumptions on unit area sizes to generate total unit prices within the modelling process. The unit area assumptions, based upon DTZ’s market knowledge are shown in Figure 2.6 below.

**Figure 2.6 Property Areas (Net Sales Area in Sq ft)**

Unit Type	Net Sales Area sq ft
2 Bed Flat	650
2 Bed House	700
3 Bed House	950
4 Bed House	1,100
5 Bed House	1,450

### Development Mix

- 2.27 The mix for each density area is also an important influence of the total square footage which is assumed to be delivered and the GDV of the development scheme as a whole. Figure 2.7 below shows the development mixes which have been assumed during this modelling.
- 2.28 Feedback from a number of stakeholders suggested that the percentage of apartments in the High density areas should be reduced to 5% however, as this would result in the same property mix as for the medium density area, this feedback was not accepted.

Site Description	Unit Type	Percentage
High Density	2 bed apartments	10%
40 dph	2 bed house	30%
	3 bed house	30%
	4 bed house	20%
	5 bed house	10%
		100%
Medium Density	2 bed apartments	5%
35 dph	2 bed house	30%
	3 bed house	35%
	4 bed house	20%
	5 bed house	10%
		100%
Low Density	2 bed house	30%
30 dph	3 bed house	35%
	4 bed house	25%
	5 bed house	10%
		100%

**Figure 2.7 Property Mix Assumptions.**

2.29 As can be seen, lower density areas have a higher predominance of larger family housing and higher densities have more 2 bedroom apartments. Given the current move towards increasing property sizes and reducing densities on site, it was felt that incorporating 1 bedroom dwellings was not necessary and is not a property type which is in needed or provided in the East Riding of Yorkshire. The move towards lower density development is driven by the development industry as the restricted availability of mortgage finance and reduction in the number of buy to let investors in the market place has significantly increased the demand for smaller properties. Density reductions, will still have to be in line with the requirements of PPS 3 and therefore the minimum densities tested in this study is 30 dph.

### **Build Costs**

2.30 We have obtained data from the BCIS on average build costs (£ per sq ft) for the ERY. BCIS provide differential build cost values for new build and conversion and for different gross internal areas (GIA) per unit as shown in Figure 2.8 below.

	Mean	Lowest	Lower Quartile	Median	Upper Quartile	Highest	Sample
General Estate Housing	£727	£282	£621	£700	£810	£1,435	361
Rebased to Q4 2009 North Yorks	£67.54	£26.20	£57.69	£65.03	£75.25	£133.31	
General Apartments	£908	£350	£756	£821	£1,031	£2,337	229
Rebased to Q4 2009 North Yorks	£84.36	£32.52	£70.23	£76.27	£95.78	£217.11	

**Figure 2.8 Extract from BCIS.**

- 2.31 However, costs from BCIS tend to be relatively low by comparison with the industry norm and a small number of low cost schemes can skew the data. Anecdotal evidence suggests that BCIS figures are mainly provided by social housing providers and contractors as private developers are less willing to do not provide confidential build cost advice to the BCIS therefore, this may also skew the figures. BCIS figures do not incorporate an allowance for externals and plot connections; typically an additional allowance of 20% is added to make an allowance for this element. The baseline assumption for this study is that all homes will be delivered to Code for Sustainable Homes level 3 and build costs therefore have to be adjusted to take account of this. If we take the median value which equates to £65.03 per square feet and add 5% for Code Level 3 (taken from CLG Guidance and comments from stakeholders) and 20% for plot externals and connections this gives a value of £81.93. For apartments, following the same principles and using the median value of £76.27 per square foot equates for £96.10 per square foot.
- 2.32 Based on DTZ's experience of valuing developments in the East Riding area and conversations with national and regional house builders operating in the area, it was determined that build costs of £85 psf for houses and £95 psf for apartments where appropriate for use throughout this study. These costs are calculated on a Net Sales Area basis
- 2.33 It is acknowledge that for any particular scheme, build costs will be affected by site conditions, the configuration of the scheme and the target market at which it is aimed. Large schemes may achieve significant economies of scale and build costs will also be affected by costs of materials and fuel and are also likely to reflect the level of the activity in the construction sector. However, for the purpose of this strategic assessment, it is necessary to use typical build costs.



### **Other Assumptions**

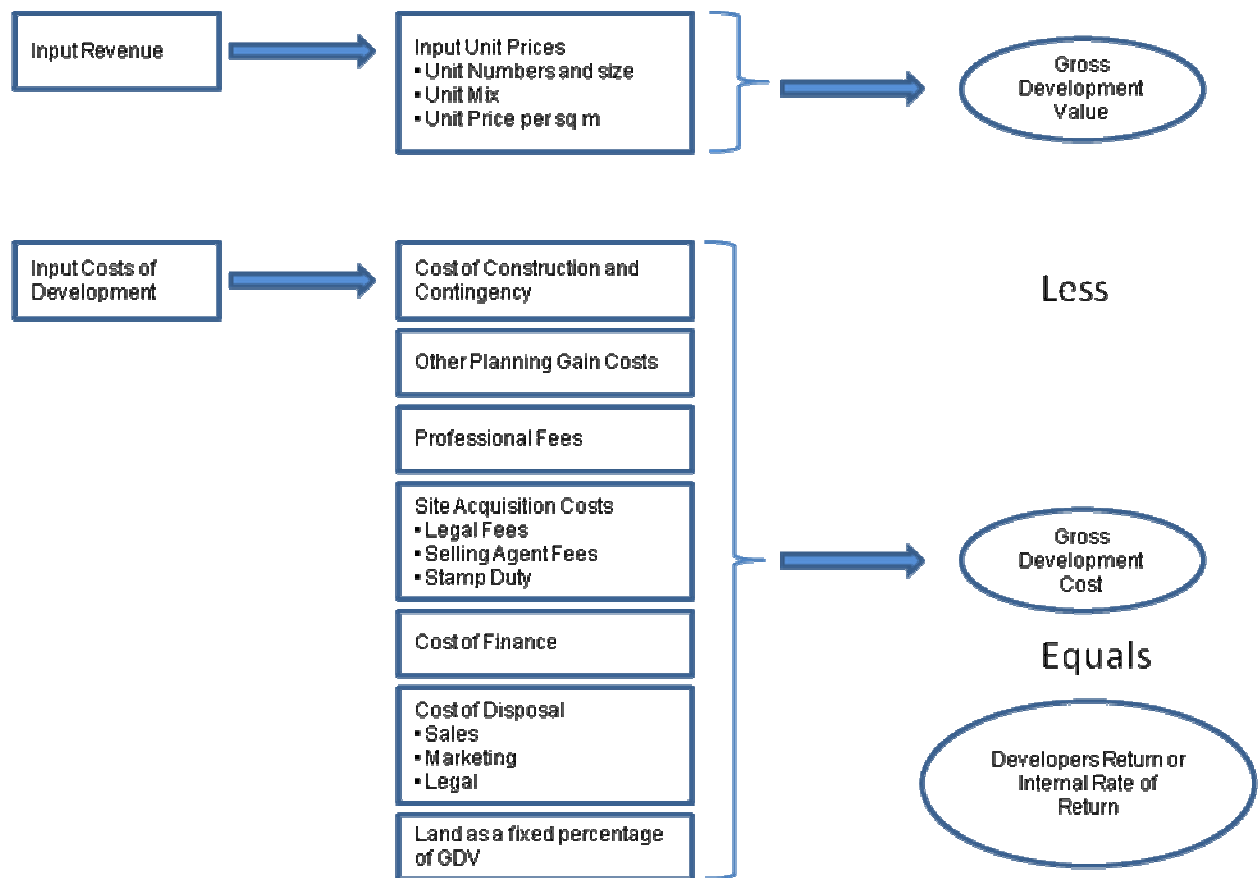
2.34 The model incorporates a number a number of other assumptions which have been held constant for all aspects of the viability assessment and are based on DTZ's experience of valuing schemes in the local markets. These additional assumptions are as follows:

- All sites have planning permission and are ready to start on site immediately
- No abnormal development costs are included within the appraisals
- Cost of Finance – 6.5% of build costs
- Professional Fees – 6% of build costs
- Contingency – 5% of build costs
- Disposal costs including marketing and sales expenses for private units – 3% of Gross Development Value
- Site acquisition costs of 5.75% of land value (to include stamp duty)
- Revenue within the cashflow is net of residential marketing and agents fees
- Model assumes contractors prelims and insurance are accounted for within the residential build cost
- Model assumes affordable revenues are received in parallel with construction expenditure and are subject to build cost inflation rather than market price inflation
- Marketing and sales fees are only applied to private residential sales
- Interest is calculated quarterly in arrears. It is assumed that profit is taken from the sites when the cash flow is positive.

### **Residual Land Values**

2.38 Initial inputs into the model assume that 20% of GDV is the minimum value at which a land owner would release their site for residential developments. Therefore this has been set as a constant within the modelling.

2.39 By fixing the percentage of GDV which is attributed to land value, the traditional residual appraisal can be modified to test return as a measure of viability. This will produce the same results as determining residual land values and comparing these to EUV. An illustration of the calculations undertaken is provided below.



- 2.40 The IRR and return is therefore the variable element through which the Economic Viability Assessment has been undertaken. If the return does not meet the required targets then the site will not come forward for development, since it is more economic for the land to continue in its present use or be retained undeveloped until the market returns to former pricing levels and an appropriate profit can be generated.
- 2.41 Therefore, the maximum amount available for affordable housing within the assessment is based on the difference between a scheme being able to provide an appropriate return. If the return falls below the target then the scheme is declared marginally unviable if within 3% (amber traffic) or totally unviable (red traffic light).
- 2.42 Where land value is fixed as a percentage of GDV and an IRR of 20% or higher is generated, an assessment of the actual land value on a £per acre basis has been undertaken to ensure that this is at a level which allows the site to come forward for residential development as opposed to an alternative use. In order to do this, alternative use values have been calculated across the area as £400,000 per acre as a minimum level of return.

2.43 This approach will be explained in more details in the results sections of the main report. However, it is important to consider that in some instances, a site which is identified for residential development or allocated housing land would not be easily substituted to a development of an alternative use. In many areas outside of town centres retail development and other employment uses would be unsuitable. This is an important consideration when assessing viability of residential developments and the delivery of affordable housing

### **Sales Rates**

2.44 Variations in sales rates impact on scheme viability. The more difficult a market environment, the less supply that can be absorbed and therefore the longer the disposal period. This impacts on scheme finances as a scheme's interest bearing balance takes longer to be offset by revenues streams from disposals (therefore interest payment costs rise and profitability is reduced). In the current market, environment sales rates have slowed significantly and for the base case scenario we are assuming 1 sale per month on small sites and 2 sales per month on larger sites.

### **Modelling Scenarios**

2.45 For the purposes of the baseline modelling, a valuation date of December 2009 has been assumed. With the property market currently stabilising after 2 years unprecedented decline and turmoil due to difficulties with financial liquidity and a downturn in global economics due to the effects of the credit crunch, it is important for ERYC to understand what is happening in the market at the current time.

2.46 As the result of the downturn, residual land values have fallen significantly from their peak in mid 2007 which places substantial pressure on the viability of residential development. Therefore as part of the viability modelling, different scenarios have been modelled from the baseline position to take account of peaks and troughs in the market which will occur over the life of the policy and Core Strategy. Therefore the following modelling scenarios will be tested:

1. Baseline position – December 2009 – this is to establish the current market position prior to any sensitivity modelling.
2. Base position with increased build rates – this is the most likely scenario to affect the market at the out turn of the recession
3. Base position with increased and decreased revenues – staged % changes in revenues – 5%, 10% and 15% to be tested



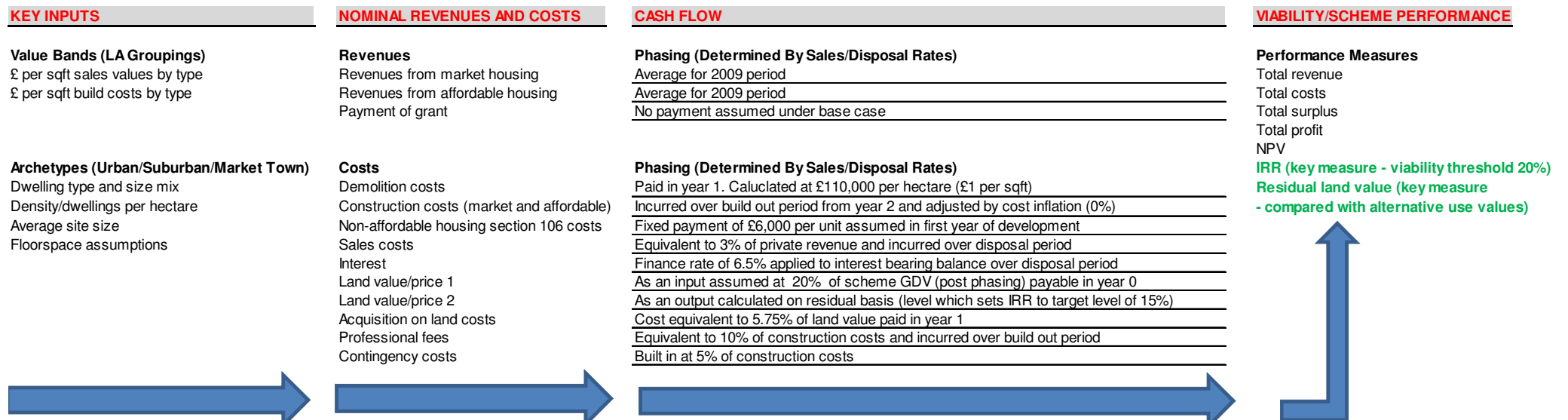
4. Base position with increased and decreased build costs – staged % changes in costs– 5%, 10% and 15% to be tested
5. Base position with varying levels of additional section 106 costs including no additional contribution
6. Market conditions at the height of the market (Q1 2007) to determine the range of affordable housing delivery which may be viable across each of the market areas.



### 3.0 The Viability Modelling Base Case Scenario.

3.1 This section of the report sets out the base case modelling results using the approach documented in Section 2 above. A summary of the model workings and assumptions are shown in the diagram in figure 3.1 below. Following this section the results of the individual market areas will be considered and presented to demonstrate what level of affordable housing can viability delivered under each scenario in each of the market areas.

Figure 3.1 Viability Model Structure and Assumptions



- 3.2 As discussed in Section 2, viability is assessed on the basis of a cash flow viability model. For every hypothetical scheme in every value band, a cash flow is run using the costs and revenue assumptions relevant to the particular scheme.<sup>2</sup> It is important to reiterate the key assumptions and how they are dealt with in the modelling and the base case (Figure 3.2).

**Figure 3.2 Additional Detail on Key Base case Model Assumptions.**

**Market Revenues and Phasing**

Market revenues are calculated based on the average £ per square foot values that apply to the particular value band in questions. This is derived by a combination of analysing Hometrack and Land Registry Data and evidence provided by stakeholders to determine the values in each geography. The values combined with the property size and scheme mix assumptions generate a total market revenue (GDV) for the scheme. The phasing assumes 1 unit per month on smaller schemes (less than 50 units) and 2 units per month on large schemes (50 units or more), with market revenues and build costs s- curved and revenues assumed to be realised in the financial year following construction.

**Internal Rate of Return Target (IRR)**

The target IRR – the level above which a scheme is considered to be viable is set at 20% in the modelling with marginal viability between 17.5 and 20%. Where a site is over 20% IRR, an deemed to be viable it is attributed a green light. Where a site is marginally viable an amber light, and where a scheme is totally unviable (below 17.5% IRR) a red light is attributed. The 20% level has been informed by DTZ’s experience of past development projects and in consultation with Stakeholders. The IRR approach has been employed to reflect the importance of cost and revenue timing and financing periods on viability, which other performance measures do not adequately capture. In practice, the rate of return required on sites will vary and it is recognised that for certain schemes, this will need to be higher than the assumed level. In presenting the results, all IRRs generated across schemes and value bands have been provided so that the impact of assuming a higher or lower target can be identified.

**Section 106 costs (non affordable housing)**

Assumed to amount to £2,000 per unit in accordance with evidence provided by ERYC, though in practice these costs can vary considerably from scheme to scheme

<sup>2</sup> The cost and revenue assumptions are determined by the schemes value band and density.

**Construction Costs**

House Build Costs - £85 per square foot

Apartment Build Costs - £95 per square foot

Professional Fees – 6%

Contingency – 5%

Marketing – 3%

Acquisition Costs – 5.76%

Finance Costs – 6.5%

**Land Values**

When factored as an input into the cash flow, land values are assumed at a proportion of the schemes Gross Development Value – 20%.

**Infrastructure Costs**

No abnormal infrastructure costs have been built into the modelling given the variability of these between different sites. However, a facility is built into the model to input specific infrastructure costs where these are known and if the model is used to examine specific schemes.

- 3.3 The approach to modelling has been to firstly generate a set of results using the base case assumptions. These results are the focus of this section of the report.
- 3.4 The analysis assessed 69 hypothetical residential schemes across six market areas. As the schemes are different sizes their contribution to the total number of housing tested varies. In total 8,511 units were tested across the 69 schemes. Initially the model is run by fixing land values at 20% of GDV and setting the requirement for affordable homes to zero percent.
- 3.5 Based on this approach, only 7% of schemes generated a viable result (green light) at over 20% IRR, a further 7% of schemes returned a marginally viable result (amber light) and the remaining 86% of schemes are unviable in the current market conditions assuming a land owner requires 20% of GDV as a land receipt to release a site for residential development and that the developer requires an IRR of 20%. When cross referenced with alternative use values (Figure 3.4), all green and amber sites yielded a land value return which was above any alternative use value. If we consider the results based on the number of units they deliver, (as it is the smaller schemes which are more viable in the current market) the percentages fall to 2% viable (green) and 3% marginally viable (amber) of all units delivered under the scenarios tested.

- 3.6 A full breakdown of these results can be seen in Figure 3.3 below:
- 3.7 In order to determine viability, DTZ have calculated the percentage of schemes and units which are either wholly viable (20% IRR or higher) or partially viable (17.5-20% IRR) and produced a percentage calculation. In the individual area testing which can be seen in the full report, affordable housing percentages have been tested until less than 50% of the sites are either wholly or partially viable. In DTZ's view, 50% represents an equitable minimum percentage of scheme which should be marginally or wholly viable before a policy is based on the results of the findings. However, some Authorities across the UK have chosen a higher percentage (65 or 75% of schemes being marginally or wholly viable) at the benchmark position on which to set their policies and other authorities have considered any level of viability even if it is 1% shows that some development is deliverability at this percentage and therefore is an equitable basis on which to set policy. As part of considering the results of this study, ERYC will have to consider what they feel is an appropriate percentage upon which to base their policy requirement. At present, this reports results and its recommendations are based on the assumption that 50% of sites or more have amber or green results.
- 3.8 A number of authorities form the view that if the affordable housing level and tenure split is viable on schemes, then that is a robust basis upon which to base their policy as they have a statutory obligation to meet the housing needs in their area and delivery units where possible on all new build development sites. Other authorities have adopted an approach of selecting a threshold at higher than 50%. The threshold of 50% has been determined by ERYC as an equitable position upon which to base policy. ERYC have concluded that having at least half of the schemes able to viably achieve that level of affordable housing contribution is an equitable basis upon which to form their view on policy. Where a percentage of affordable housing is tested and falls below 50% of the total schemes, then modelling of this scenario is stopped as any higher percentages of affordable housing would be deemed unviable.
- 3.9 By choosing a threshold of 50% of all schemes, ERYC risk the opportunity to secure a higher percentage of affordable housing on a small number of sites that may be viable. The Housing Needs identified in ERYC are such that 133% the annual requirement for housing numbers needs to be delivered per annum to meet the affordable housing need. This level of need could have supported ERYC selecting a lower percentage of total number of sites viable as a basis for this study but the wish to progress on a equitable basis in a fair and balanced manner was adopted.



Figure 3.3 Baseline Results.

Scheme Reference	Number of Units	High Value Viability	Med Value Viability	Low Value Viability	Percentage of Schemes Viable			Percentage of Units		
					Green	Amber	Red	Green	Amber	Red
BSLD	15	25.4%	18.3%	9.6%	1	1	1	15	15	15
BSMD	18	22.1%	16.1%	8.5%	1	0	2	18	0	36
BSHD	20	21.9%	15.9%	8.3%	1	0	2	20	0	40
BMLD	45	18.0%	13.4%	7.3%	0	1	2	0	45	90
BMMD	53	17.8%	13.2%	7.1%	0	1	2	0	53	106
BMHD	60	17.7%	13.0%	6.9%	0	1	2	0	60	120
BLLD	90	18.0%	13.4%	7.3%	0	1	2	0	90	180
BLMD	105	17.9%	13.2%	7.1%	0	1	2	0	105	210
BLHD	120	16.1%	11.9%	6.4%	0	0	3	0	0	360
BXLLD	360	12.5%	8.4%	2.7%	0	0	3	0	0	1080
BXLMD	420	12.3%	8.2%	2.5%	0	0	3	0	0	1260
BXLHD	480	12.2%	8.1%	2.3%	0	0	3	0	0	1440
BRSLD	15	19.8%	13.3%	5.6%	0	1	2	0	15	30
BRSM	18	17.4%	11.8%	4.9%	0	0	3	0	0	54
BRSHD	20	17.2%	11.5%	4.7%	0	0	3	0	0	60
BRMLD	45	14.4%	9.9%	4.4%	0	0	3	0	0	135
BRMMD	53	14.2%	9.7%	4.1%	0	0	3	0	0	159
BRMHD	60	14.0%	9.6%	4.0%	0	0	3	0	0	180
BRLLD	90	14.4%	9.9%	4.4%	0	0	3	0	0	270
BRLMD	105	14.2%	9.8%	4.2%	0	0	3	0	0	315
BRLHD	120	12.9%	8.8%	3.7%	0	0	3	0	0	360
BRXLLD	360	9.3%	5.2%	0.0%	0	0	3	0	0	1080
BRXLMD	420	9.2%	5.0%	0.0%	0	0	3	0	0	1260
BRXLHD	480	9.0%	4.9%	0.0%	0	0	3	0	0	1440
GSLD	15	16.7%	9.6%	3.5%	0	0	3	0	0	45
GSMD	18	14.7%	8.5%	3.0%	0	0	3	0	0	54
GSHD	20	14.5%	8.3%	2.8%	0	0	3	0	0	60
GMLD	45	12.3%	7.3%	2.8%	0	0	3	0	0	135
GMMD	53	12.1%	7.1%	2.5%	0	0	3	0	0	159
GMHD	60	11.9%	6.9%	2.3%	0	0	3	0	0	180
GLLD	90	12.3%	7.3%	2.8%	0	0	3	0	0	270
GLMD	105	12.1%	7.1%	2.6%	0	0	3	0	0	315
GLHD	120	11.0%	6.4%	2.2%	0	0	3	0	0	360
GXLLD	270	7.4%	2.7%	0.0%	0	0	3	0	0	810
GXLMD	315	7.2%	2.5%	0.0%	0	0	3	0	0	945
GXLHD	360	7.1%	2.3%	0.0%	0	0	3	0	0	1080
HSLD	15	16.7%	9.6%	1.3%	0	0	3	0	0	45
HSMD	18	11.5%	4.6%	0.0%	0	0	3	0	0	54
HSHD	20	11.5%	4.7%	0.0%	0	0	3	0	0	60
HMLD	45	8.5%	2.7%	0.0%	0	0	3	0	0	135
HMMD	53	8.7%	3.1%	0.0%	0	0	3	0	0	159
HMHD	60	8.4%	2.6%	0.0%	0	0	3	0	0	180
HLLD	90	8.4%	2.6%	0.0%	0	0	3	0	0	270
HLMD	105	8.1%	2.3%	0.0%	0	0	3	0	0	315
HLHD	120	7.1%	1.7%	0.0%	0	0	3	0	0	360
HBSLD	15	25.4%	11.5%	5.6%	1	0	2	15	0	30
HBSMD	18	22.1%	10.2%	4.9%	1	0	2	18	0	36
HBSHD	20	21.9%	9.9%	4.7%	1	0	2	20	0	40
HBMMLD	45	18.0%	8.7%	4.4%	0	1	2	0	45	90
HBMMD	53	17.8%	8.4%	4.1%	0	1	2	0	53	106
HBMHD	60	17.7%	8.3%	4.0%	0	1	2	0	60	120
HBLLD	90	18.0%	8.7%	4.4%	0	1	2	0	90	180
HBLMD	105	17.9%	8.5%	4.2%	0	1	2	0	105	210
HBLHD	120	16.1%	7.7%	3.7%	0	0	3	0	0	360
HBXLLD	270	12.5%	4.0%	0.0%	0	0	3	0	0	810
HBXLMD	315	12.3%	3.8%	0.0%	0	0	3	0	0	945
HBXLHD	360	12.2%	3.6%	0.0%	0	0	3	0	0	1080
WSLD	15	30.5%	19.0%	11.6%	1	1	1	15	15	15
WSMD	18	26.4%	16.7%	10.2%	1	0	2	18	0	36
WSHD	20	26.2%	16.5%	10.0%	1	0	2	20	0	40
WMLD	45	21.2%	13.8%	8.7%	1	0	2	45	0	90
WMMD	53	21.0%	13.6%	8.5%	1	0	2	53	0	106
WMHD	60	20.9%	13.5%	8.3%	1	0	2	60	0	120
WLLD	90	21.2%	13.8%	8.7%	1	0	2	90	0	180
WLMD	105	21.1%	13.6%	8.5%	1	0	2	105	0	210
WLHD	120	19.0%	12.4%	7.7%	0	1	2	0	120	240
WXLLD	270	15.1%	8.8%	4.0%	0	0	3	0	0	810
WXLMD	315	15.0%	8.6%	3.8%	0	0	3	0	0	945
WXLHD	360	14.9%	8.5%	3.7%	0	0	3	0	0	1080
					14	14	179	512	871	24150
					7%	7%	86%	2%	3%	95%

**Figure 3.4 Land Value Analysis**

Scheme Reference	Scenario	Traffic Light	Site Size ha	Site Size acres	Site value generated as 20% GDV	Value per acre	Higher than Alternative Use?
BSLD	High Market	Green	0.5	1.24	£564,000	£456,495	Y
BSMD	High Market	Green	0.5	1.24	£686,000	£555,241	Y
BSHD	High Market	Green	0.5	1.24	£740,000	£598,948	Y
BMLD	High Market	Amber	1.5	3.71	£1,746,000	£471,064	Y
BMMD	High Market	Amber	1.5	3.71	£1,984,000	£535,276	Y
BMHD	High Market	Amber	1.5	3.71	£2,220,000	£598,948	Y
BLLD	High Market	Amber	3	7.41	£3,462,000	£467,017	Y
BLMD	High Market	Amber	3	7.41	£3,936,000	£530,959	Y
BSLD	Mid Market	Amber	0.5	1.24	£493,500	£399,433	Y
BRSLD	High Market	Amber	0.5	1.24	£507,600	£410,846	Y
HBSLD	High Market	Green	0.5	1.24	£564,000	£456,495	Y
HBSMD	High Market	Green	0.5	1.24	£686,000	£555,241	Y
HBSHD	High Market	Green	0.5	1.24	£740,000	£598,948	Y
HBMLD	High Market	Amber	1.5	3.71	£1,746,000	£471,064	Y
HBMMD	High Market	Amber	1.5	3.71	£1,984,000	£535,276	Y
HBMHD	High Market	Amber	1.5	3.71	£2,220,000	£598,948	Y
HBLLD	High Market	Amber	3	7.41	£3,462,000	£467,017	Y
HBLMD	High Market	Amber	3	7.41	£3,936,000	£530,959	Y
WSLD	High Market	Green	0.5	1.24	£564,000	£456,495	Y
WSMD	High Market	Green	0.5	1.24	£686,000	£555,241	Y
WSHD	High Market	Green	0.5	1.24	£740,000	£598,948	Y
WMLD	High Market	Green	1.5	3.71	£1,746,000	£471,064	Y
WMMD	High Market	Green	1.5	3.71	£1,984,000	£535,276	Y
WMHD	High Market	Green	1.5	3.71	£2,220,000	£598,948	Y
WLLD	High Market	Green	3	7.41	£3,462,000	£467,017	Y
WLMD	High Market	Green	3	7.41	£3,936,000	£530,959	Y
WLHD	High Market	Amber	3	7.41	£4,440,000	£598,948	Y
WSLD	Mid Market	Amber	0.5	1.24	£451,200	£365,196	Y

3.10 As no viability was recorded on any site in Goole or Holderness at the baseline position no analysis of land values has been undertaken in these areas. Only sites which produce a green or amber light have been assessed.

3.11 Analysis by individual area in the sections below show what level of affordable housing can be viably delivered in each market area at the baseline position.



## 4.0 Thresholds Analysis

4.1 The East Riding of Yorkshire Council proposes that affordable housing contributions will only be sought for schemes that have the capacity to deliver 15 or more units. Part of the brief for this study is to consider the appropriateness of the proposed threshold. Whether the proposed threshold is appropriate depends on a number of considerations;

- Firstly it is appropriate to consider the relevant planning context, in this case the guidance contained in PPS3
- Second, it is necessary to consider the viability of the proposed threshold in terms of:
  - Whether schemes just under the threshold could contribute affordable housing
  - Whether schemes well below the threshold could contribute affordable housing
- Thirdly, the practicality of the proposed threshold needs to be examined, in terms of:
  - Whether it is administratively practical to seek a contribution for schemes below this threshold and whether this would deliver a significant amount of affordable housing without other adverse consequences.

4.2 This section is structured around examination of each of these topics. It follows on from the previous analysis which shows that under most circumstances at the baseline position, viable delivery of affordable housing is marginal and, as expected, this position increases as market circumstances improve. The analysis in this report is undertaken only on sites deemed to be viable at the Baseline and Height of the Market positions only. The threshold analysis explores the practical considerations of setting an appropriate threshold; as well as providing a more detailed examination of the implications for smaller schemes of the proposed threshold.

### Planning Policy Context

4.3 PPS 3 provides national guidance on the appropriate threshold at which affordable housing policies should apply. The current guidance indicates that the norm in terms of affordable housing thresholds should be set at schemes with at least 15 dwellings. However, PPS3 also states that *'Local Planning Authorities can set lower minimum targets, where viable and practical'*.



- 4.4 PPS makes it clear that while authorities have discretion to reduce the threshold from the national indicative figure of 15 units, it is important to demonstrate that this is *'viable and practical'*.

#### **DTZ Assessment of Viability and Thresholds**

- 4.5 DTZ have investigated the threshold issue through the viability model used as part of this study. The approach taken reflects the broad approach taken in this study to modelling viability. The approach adopted is as follows:

- The focus is on those sites which were viable when the unit threshold was set at 15 units and tested to see what level of affordable housing could be supported as this threshold was decreased.
- This will enable analysis to determine whether a sliding scale of percentage requirements for affordable housing is appropriate on smaller schemes, with smaller schemes expected to contribute a smaller proportion of affordable housing than larger schemes.
- Viability is assessed in the same way as previously, undertaking by assessing the return from the development and comparing the residual land values of those which are viable against alternative use values.

#### **Baseline Scenario**

- 4.6 At the Baseline position, only small sites in high value areas of the Market Areas returned positive results. These are used below to test the threshold levels and determine the tipping points for the analysis

#### **Beverley – Small Site – High Value**

- 4.7 The analysis for small sites in Beverley shows that only in High Values areas is any form of affordable housing viably deliverable. At the baseline positions, 15% affordable housing appears to be deliverable on small sites, with the level of return varying only marginally depending upon the threshold required for the delivery of affordable housing
- 4.8 The tipping point appears to be around the 9 unit level, with no affordable housing viably delivered when the thresholds falls below 6 units. It is important to recognise that only high value areas at the baseline position deliver any affordable housing.

Beverley Small Sites High Value	Threshold	IRR Recorded at Each Affordable Housing Percentage					
		0%	5%	10%	15%	20%	25%
			50% SR	50% SR	50% SR	50% SR	50% SR
Beverley 20 Units	20	● 21.9%	● 21.9%	● 21.9%	● 20.7%	● 19.8%	● 19.8%
Beverley 18 Units	18	● 22.1%	● 22.1%	● 22.1%	● 22.1%	● 18.3%	● 14.9%
Beverley 15 Units	15	● 25.4%	● 25.4%	● 22.5%	● 22.5%	● 18.9%	● 18.9%
Beverley 10 Units	10	● 24.9%	● 24.9%	● 24.9%	● 20.3%	● 18.5%	● 13.6%
Beverley 9 Units	9	● 24.9%	● 24.9%	● 19.6%	● 19.6%	● 19.6%	● 19.6%
Beverley 8 Units	8	● 24.9%	● 24.9%	● 18.8%	● 18.8%	● 18.8%	● 18.8%
Beverley 7 Units	7	● 24.9%	● 24.9%	● 24.9%	● 17.7%	● 17.7%	● 17.7%
Beverley 6 Units	6	● 24.9%	● 24.9%	● 16.1%	● 16.1%	● 16.1%	● 16.1%
Beverley 5 Units	5	● 24.9%	● 24.9%	● 24.9%	● 13.6%	● 13.6%	● 13.6%
Beverley 4 Units	4	● 24.9%	● 24.9%	● 24.9%	● 9.1%	● 9.1%	● 9.1%
Beverley 3 Units	3	● 24.9%	● 24.9%	● 24.9%	● 24.9%	● 0.0%	● 0.0%

#### Bridlington, Goole and Holderness

4.9 At the baseline position, no viability was demonstrated in these areas therefore analysis has not been undertaken.

#### Hull Borders

4.10 The analysis for small sites in the Hull Borders shows that only in High Values areas is any form of affordable housing viably deliverable. At the baseline positions, 15% affordable housing appears to be deliverable on small sites, with the level of return varying only marginally depending upon the threshold required for the delivery of affordable housing

4.11 The tipping point appears to be around the 9 units level, with no affordable housing viably delivered when the thresholds falls below 6 units. It is important to recognise that only high value areas at the baseline position deliver any affordable housing.

Hull Borders Small Sites High Value	Threshold	IRR Recorded at Each Affordable Housing Percentage						
		0%	5%	10%	15%	20%	25%	
			50% SR	50% SR	50% SR	50% SR	50% SR	
Hull Borders 20 Units	20	● 21.9%	● 21.9%	● 21.9%	● 21.9%	● 18.4%	● 15.3%	
Hull Borders 18 Units	18	● 22.1%	● 22.1%	● 22.1%	● 22.1%	● 18.3%	● 14.9%	
Hull Borders 15 Units	15	● 25.4%	● 25.4%	● 25.4%	● 25.4%	● 18.9%	● 18.9%	
Hull Borders 10 Units	10	● 25.4%	● 20.8%	● 20.8%	● 20.8%	● 20.8%	● 14.2%	
Hull Borders 9 Units	9	● 25.4%	● 25.4%	● 20.2%	● 20.2%	● 20.2%	● 14.2%	
Hull Borders 8 Units	8	● 25.4%	● 25.4%	● 25.4%	● 0.0%	● 19.4%	● 19.4%	
Hull Borders 7 Units	7	● 25.4%	● 25.4%	● 18.3%	● 18.3%	● 18.3%	● 18.3%	
Hull Borders 6 Units	6	● 25.4%	● 25.4%	● 25.4%	● 16.7%	● 16.7%	● 16.7%	
Hull Borders 5 Units	5	● 25.4%	● 25.4%	● 25.4%	● 14.2%	● 14.2%	● 14.2%	
Hull Borders 4 Units	4	● 25.4%	● 25.4%	● 25.4%	● 9.7%	● 9.7%	● 9.7%	
Hull Borders 3 Units	3	● 25.4%	● 25.4%	● 25.4%	● 25.4%	● 0.0%	● 0.0%	

### Wolds

- 4.12 The analysis for small sites in the Wolds shows that only in High Values areas is any form of affordable housing viably deliverable. At the baseline positions, 15% affordable housing appears to be deliverable on small sites with the level of return varying only marginally depending upon the threshold required for the delivery of affordable housing
- 4.13 The tipping point appears to be around the 9 units level, with no affordable housing viably delivered when the thresholds falls below 6 units. It is important to recognise that only high value areas at the baseline position deliver any affordable housing.

Wolds Small Sites High Value	Threshold	IRR Recorded at Each Affordable Housing Percentage						
		0%	5%	10%	15%	20%	25%	
			50% SR	50% SR	50% SR	50% SR	50% SR	
Wolds 20 Units	20	● 21.9%	● 21.9%	● 21.9%	● 20.7%	● 19.8%	● 19.8%	
Wolds 18 Units	18	● 22.1%	● 22.1%	● 22.1%	● 22.1%	● 18.3%	● 14.9%	
Wolds 15 Units	15	● 25.4%	● 25.4%	● 22.5%	● 22.5%	● 18.9%	● 18.9%	
Wolds 10 Units	10	● 24.9%	● 24.9%	● 24.9%	● 20.3%	● 18.5%	● 13.6%	
Wolds 9 Units	9	● 24.9%	● 24.9%	● 19.6%	● 19.6%	● 19.6%	● 19.6%	
Wolds 8 Units	8	● 24.9%	● 24.9%	● 18.8%	● 18.8%	● 18.8%	● 18.8%	
Wolds 7 Units	7	● 24.9%	● 24.9%	● 24.9%	● 17.7%	● 17.7%	● 17.7%	
Wolds 6 Units	6	● 24.9%	● 24.9%	● 16.1%	● 16.1%	● 16.1%	● 16.1%	
Wolds 5 Units	5	● 24.9%	● 24.9%	● 24.9%	● 13.6%	● 13.6%	● 13.6%	
Wolds 4 Units	4	● 24.9%	● 24.9%	● 24.9%	● 9.1%	● 9.1%	● 9.1%	
Wolds 3 Units	3	● 24.9%	● 24.9%	● 24.9%	● 24.9%	● 0.0%	● 0.0%	

### Height of the Market Scenario.

- 4.14 In the Height of the market scenario a number of smaller sites became more viable at both the high, medium and low values areas. By undertaking the same analysis as that completed above, we are able to see if the threshold for the delivery of affordable housing should be changed in differing market scenarios.



### Beverley – Small Sites Threshold Analysis – Height of the Market

4.15 The analysis for small sites in Beverley at the height of the market shows viability across the range of sites tested. Again, it is clear that the tipping point appears to be around the 9 units level with a more significant impact on viability from 8 units or less.

Beverley Small Sites High Value	Threshold	IRR Recorded at Each Affordable Housing Percentage																	
		0%			5%			10%			15%			20%			25%		
		High Value	Med Value	Low Value	High Value	Med Value	Low Value	High Value	Med Value	Low Value	High Value	Med Value	Low Value	High Value	Med Value	Low Value	High Value	Med Value	Low Value
					50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR
Beverley 20 Units	20	● 29.8%	● 27.4%	● 19.4%	● 29.8%	● 27.4%	● 19.4%	● 29.8%	● 27.4%	● 19.4%	● 29.8%	● 27.4%	● 19.4%	● 26.4%	● 23.7%	● 14.6%	● 23.4%	● 20.5%	● 10.5%
Beverley 18 Units	18	● 30.0%	● 27.7%	● 19.6%	● 30.0%	● 27.7%	● 19.6%	● 30.0%	● 27.7%	● 19.6%	● 30.0%	● 27.7%	● 19.6%	● 26.3%	● 23.6%	● 14.4%	● 23.0%	● 20.1%	● 9.9%
Beverley 15 Units	15	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.6%	● 22.8%	● 13.3%	● 21.1%	● 18.0%	● 7.2%
Beverley 10 Units	10	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 26.4%	● 22.8%	● 13.3%	● 26.4%	● 18.0%	● 7.2%
Beverley 9 Units	9	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.9%	● 22.8%	● 13.3%	● 25.9%	● 18.0%	● 7.2%
Beverley 8 Units	8	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.2%	● 22.8%	● 13.3%	● 25.2%	● 18.0%	● 7.2%	● 25.2%	● 18.0%	● 7.2%
Beverley 7 Units	7	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.2%	● 22.8%	● 13.3%	● 25.2%	● 18.0%	● 7.2%	● 25.2%	● 18.0%	● 7.2%
Beverley 6 Units	6	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.2%	● 22.8%	● 13.3%	● 25.2%	● 18.0%	● 7.2%	● 25.2%	● 18.0%	● 7.2%
Beverley 5 Units	5	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.2%	● 22.8%	● 13.3%	● 25.2%	● 18.0%	● 7.2%	● 25.2%	● 18.0%	● 7.2%
Beverley 4 Units	4	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 22.8%	● 13.3%	● 17.0%	● 18.0%	● 7.2%	● 17.0%	● 18.0%	● 7.2%
Beverley 3 Units	3	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 22.8%	● 13.3%	● 17.0%	● 18.0%	● 7.2%	● 4.3%	● -0.6%	● -5.4%

### Bridlington – Small Sites Threshold Analysis – Height of the Market

4.16 The analysis for small sites in Bridlington at the height of the market shows viability across the range of sites tested. No viability was seen for sites in Low Value Areas in Bridlington. Again, it is clear that the tipping point appears to be around the 9 units level with a more significant impact on viability from 8 units or less.



Bridlington Small Sites High Value	Threshold	IRR Recorded at Each Affordable Housing Percentage													
		0%		5%		10%		15%		20%		25%			
		High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value		
				50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR		
Bridlington 20 Units	20	● 28.9%	● 22.8%	● 28.9%	● 22.8%	● 28.9%	● 22.8%	● 28.9%	● 22.8%	● 28.9%	● 22.8%	● 25.3%	● 18.5%	● 22.3%	● 14.8%
Bridlington 18 Units	18	● 29.1%	● 23.1%	● 29.1%	● 23.1%	● 29.1%	● 23.1%	● 29.1%	● 23.1%	● 29.1%	● 23.1%	● 25.3%	● 18.3%	● 21.9%	● 14.2%
Bridlington 15 Units	15	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 24.5%	● 17.4%	● 19.9%	● 11.8%
Bridlington 10 Units	10	● 29.3%	● 23.3%	● 25.3%	● 23.3%	● 25.3%	● 23.3%	● 25.3%	● 23.3%	● 25.3%	● 23.3%	● 25.3%	● 17.4%	● 25.3%	● 11.8%
Bridlington 9 Units	9	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 24.8%	● 23.3%	● 24.8%	● 17.4%	● 24.8%	● 11.8%
Bridlington 8 Units	8	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 24.1%	● 17.4%	● 24.1%	● 11.8%	● 24.1%	● 11.8%
Bridlington 7 Units	7	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 23.1%	● 17.4%	● 24.1%	● 11.8%	● 24.1%	● 11.8%
Bridlington 6 Units	6	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 23.1%	● 17.4%	● 24.1%	● 11.8%	● 24.1%	● 11.8%	● 24.1%	● 11.8%	● 12.0%	● 11.8%
Bridlington 5 Units	5	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 23.1%	● 17.4%	● 24.1%	● 11.8%	● 24.1%	● 11.8%	● 24.1%	● 11.8%	● 12.0%	● 11.8%
Bridlington 4 Units	4	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 23.1%	● 17.4%	● 24.1%	● 11.8%	● 24.1%	● 11.8%	● 24.1%	● 11.8%	● 12.0%	● 11.8%
Bridlington 3 Units	3	● 29.3%	● 23.3%	● 29.3%	● 23.3%	● 23.1%	● 17.4%	● 24.1%	● 11.8%	● 24.1%	● 11.8%	● 24.1%	● 11.8%	● 12.0%	● 11.8%

**Goole – Small Sites Threshold Analysis – Height of the Market**

4.17 The analysis for small sites in Goole at the height of the market shows viability across the range of sites tested. No viability was seen for sites in Low Value Areas in Goole. In this circumstance, it is clear that the tipping point appears to be around the 10 units level with a more significant impact on viability from 10 units or less.





Goole Small Sites High Value	Threshold	IRR Recorded at Each Affordable Housing Percentage											
		0%		5%		10%		15%		20%		25%	
		High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value
				50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR
Goole 20 Units	20	● 28.0%	● 21.6%	● 28.0%	● 21.6%	● 28.0%	● 21.6%	● 28.0%	● 21.6%	● 24.4%	● 17.1%	● 21.2%	● 13.2%
Goole 18 Units	18	● 28.3%	● 21.8%	● 28.3%	● 21.8%	● 28.3%	● 21.8%	● 28.3%	● 21.8%	● 24.3%	● 16.9%	● 20.8%	● 12.6%
Goole 15 Units	15	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 23.5%	● 15.9%	● 18.8%	● 10.1%
Goole 10 Units	10	● 28.5%	● 22.0%	● 24.4%	● 22.0%	● 24.4%	● 22.0%	● 24.4%	● 15.9%	● 24.4%	● 10.1%	● 18.5%	● 10.1%
Goole 9 Units	9	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 15.9%	● 23.8%	● 10.1%	● 16.8%	● 10.1%
Goole 8 Units	8	● 29.3%	● 23.3%	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 23.1%	● 10.1%	● 18.5%	● 10.1%	● 14.4%	● 10.1%
Goole 7 Units	7	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.1%	● 10.1%	● 18.5%	● 10.1%	● 14.4%	● 10.1%
Goole 6 Units	6	● 28.5%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 20.7%	● 10.1%	● 20.7%	● 10.1%	● 14.4%	● 10.1%
Goole 5 Units	5	● 28.5%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 20.7%	● 10.1%	● 20.7%	● 10.1%	● 14.4%	● 10.1%
Goole 4 Units	4	● 28.5%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 20.7%	● 10.1%	● 20.7%	● 10.1%	● 14.4%	● 10.1%
Goole 3 Units	3	● 28.5%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 20.7%	● 10.1%	● 20.7%	● 10.1%	● 14.4%	● 10.1%

**Holderness – Small Sites Threshold Analysis – Height of the Market**

4.18 The analysis for small sites in Holderness at the height of the market shows viability across the range of sites tested. No viability was seen for sites in Low Value Areas in Holderness. In this circumstance, it is clear that the tipping point appears to be around the 10 units level, with a more significant impact on viability from 10 units or less.



Holderness Small Sites High Value	Threshold	IRR Recorded at Each Affordable Housing Percentage													
		0%		5%		10%		15%		20%		25%			
		High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value		
				50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR		
Holderness 20 Units	20	● 28.0%	● 21.6%	● 28.0%	● 21.6%	● 28.0%	● 21.6%	● 28.0%	● 21.6%	● 28.0%	● 21.6%	● 24.4%	● 17.1%	● 21.2%	● 13.2%
Holderness 18 Units	18	● 28.3%	● 21.8%	● 28.3%	● 21.8%	● 28.3%	● 21.8%	● 28.3%	● 21.8%	● 28.3%	● 21.8%	● 24.3%	● 16.9%	● 20.8%	● 12.6%
Holderness 15 Units	15	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 23.5%	● 15.9%	● 18.8%	● 10.1%
Holderness 10 Units	10	● 28.5%	● 22.0%	● 24.4%	● 22.0%	● 24.4%	● 22.0%	● 24.4%	● 22.0%	● 24.4%	● 15.9%	● 24.4%	● 10.1%	● 18.5%	● 10.1%
Holderness 9 Units	9	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 15.9%	● 23.8%	● 10.1%	● 16.8%	● 10.1%
Holderness 8 Units	8	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 28.5%	● 22.0%	● 23.1%	● 10.1%	● 18.5%	● 10.1%	● 14.4%	● 10.1%
Holderness 7 Units	7	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.1%	● 10.1%	● 18.5%	● 10.1%	● 14.4%	● 10.1%
Holderness 6 Units	6	● 28.5%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 20.7%	● 10.1%	● 20.7%	● 10.1%	● 14.4%	● 10.1%
Holderness 5 Units	5	● 28.5%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 20.7%	● 10.1%	● 20.7%	● 10.1%	● 14.4%	● 10.1%
Holderness 4 Units	4	● 28.5%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 20.7%	● 10.1%	● 20.7%	● 10.1%	● 14.4%	● 10.1%
Holderness 3 Units	3	● 28.5%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 23.8%	● 22.0%	● 20.7%	● 10.1%	● 20.7%	● 10.1%	● 14.4%	● 10.1%



### Hull Borders – Small Sites Threshold Analysis – Height of the Market

4.19 The analysis for small sites in Hull Borders at the height of the market shows viability across the range of sites tested. No viability was seen for sites in Low Value Areas in Hull Borders. In this circumstance, it is clear that the tipping point appears to be around the 10 units level, with a more significant impact on viability from 10 units or less.

Hull Borders Small Sites High Value	Threshold	IRR Recorded at Each Affordable Housing Percentage													
		0%		5%		10%		15%		20%		25%			
		High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value	High Value	Med Value		
				50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR		
Hull Borders 20 Units	20	● 34.0%	● 21.1%	● 34.0%	● 21.1%	● 34.0%	● 21.1%	● 34.0%	● 21.1%	● 34.0%	● 21.1%	● 31.2%	● 16.6%	● 28.7%	● 12.7%
Hull Borders 18 Units	18	● 34.0%	● 21.1%	● 34.0%	● 21.1%	● 34.0%	● 21.1%	● 34.0%	● 21.1%	● 34.0%	● 21.1%	● 31.1%	● 16.4%	● 28.4%	● 12.1%
Hull Borders 15 Units	15	● 34.4%	● 21.6%	● 34.4%	● 21.6%	● 34.4%	● 21.6%	● 34.4%	● 21.6%	● 34.4%	● 21.6%	● 30.6%	● 15.4%	● 26.9%	● 9.5%
Hull Borders 10 Units	10	● 34.4%	● 21.6%	● 34.4%	● 21.6%	● 31.2%	● 21.6%	● 34.4%	● 21.6%	● 34.4%	● 21.6%	● 31.2%	● 15.4%	● 31.2%	● 9.5%
Hull Borders 9 Units	9	● 34.4%	● 21.6%	● 30.8%	● 21.6%	● 30.8%	● 21.6%	● 30.8%	● 21.6%	● 30.8%	● 15.8%	● 30.8%	● 15.8%	● 30.8%	● 9.5%
Hull Borders 8 Units	8	● 34.4%	● 21.6%	● 30.8%	● 21.6%	● 30.8%	● 21.6%	● 30.3%	● 14.9%	● 30.3%	● 14.9%	● 30.3%	● 14.9%	● 30.3%	● 9.5%
Hull Borders 7 Units	7	● 34.4%	● 21.6%	● 30.8%	● 21.6%	● 30.8%	● 21.6%	● 29.5%	● 13.7%	● 29.5%	● 13.7%	● 29.5%	● 13.7%	● 29.5%	● 9.5%
Hull Borders 6 Units	6	● 34.4%	● 21.6%	● 30.8%	● 21.6%	● 30.8%	● 21.6%	● 28.4%	● 11.9%	● 28.4%	● 11.9%	● 28.4%	● 11.9%	● 28.4%	● 9.5%
Hull Borders 5 Units	5	● 34.4%	● 21.6%	● 30.8%	● 21.6%	● 30.8%	● 21.6%	● 26.7%	● 9.1%	● 26.7%	● 9.1%	● 26.7%	● 9.1%	● 26.7%	● 9.1%
Hull Borders 4 Units	4	● 34.4%	● 21.6%	● 30.8%	● 21.6%	● 30.8%	● 21.6%	● 26.7%	● 9.1%	● 26.7%	● 9.1%	● 26.7%	● 9.1%	● 23.5%	● 4.1%
Hull Borders 3 Units	3	● 34.4%	● 21.6%	● 30.8%	● 21.6%	● 30.8%	● 21.6%	● 26.7%	● 9.1%	● 26.7%	● 9.1%	● 26.7%	● 9.1%	● 23.5%	● 4.1%



### The Wolds – Small Sites Threshold Analysis – Height of the Market

4.20 The analysis for small sites in Wolds at the height of the market shows viability across the range of sites tested. Again, it is clear that the tipping point appears to be around the 9 units level with a more significant impact on viability from 8 units or less.

Wolds Small Sites High Value	Threshold	IRR Recorded at Each Affordable Housing Percentage																	
		0%			5%			10%			15%			20%			25%		
		High Value	Med Value	Low Value	High Value	Med Value	Low Value	High Value	Med Value	Low Value	High Value	Med Value	Low Value	High Value	Med Value	Low Value	High Value	Med Value	Low Value
					50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR	50% SR
Wolds 20 Units	20	● 29.8%	● 27.4%	● 19.4%	● 29.8%	● 27.4%	● 19.4%	● 29.8%	● 27.4%	● 19.4%	● 29.8%	● 27.4%	● 19.4%	● 26.4%	● 23.7%	● 14.6%	● 23.4%	● 20.5%	● 10.5%
Wolds 18 Units	18	● 30.0%	● 27.7%	● 19.6%	● 30.0%	● 27.7%	● 19.6%	● 30.0%	● 27.7%	● 19.6%	● 30.0%	● 27.7%	● 19.6%	● 26.3%	● 23.6%	● 14.4%	● 23.0%	● 20.1%	● 9.9%
Wolds 15 Units	15	● 30.2%	● 27.9%	● 19.6%	● 30.1%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.6%	● 22.8%	● 13.3%	● 21.1%	● 18.0%	● 7.2%
Wolds 10 Units	10	● 30.2%	● 27.9%	● 19.6%	● 30.1%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 26.4%	● 22.8%	● 13.3%	● 26.4%	● 18.0%	● 7.2%
Wolds 9 Units	9	● 30.2%	● 27.9%	● 19.6%	● 30.1%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.9%	● 22.8%	● 13.3%	● 25.9%	● 18.0%	● 7.2%
Wolds 8 Units	8	● 30.2%	● 27.9%	● 19.6%	● 30.1%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.2%	● 22.8%	● 13.3%	● 25.2%	● 18.0%	● 7.2%	● 25.2%	● 18.0%	● 7.2%
Wolds 7 Units	7	● 30.2%	● 27.9%	● 19.6%	● 30.1%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.2%	● 22.8%	● 13.3%	● 25.2%	● 18.0%	● 7.2%	● 25.2%	● 18.0%	● 7.2%
Wolds 6 Units	6	● 30.2%	● 27.9%	● 19.6%	● 30.1%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.2%	● 22.8%	● 13.3%	● 25.2%	● 18.0%	● 7.2%	● 25.2%	● 18.0%	● 7.2%
Wolds 5 Units	5	● 30.2%	● 27.9%	● 19.6%	● 30.1%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 25.2%	● 22.8%	● 13.3%	● 25.2%	● 18.0%	● 7.2%	● 25.2%	● 18.0%	● 7.2%
Wolds 4 Units	4	● 30.2%	● 27.9%	● 19.6%	● 30.1%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 22.8%	● 13.3%	● 17.0%	● 18.0%	● 7.2%	● 17.0%	● 18.0%	● 7.2%
Wolds 3 Units	3	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 27.9%	● 19.8%	● 30.2%	● 22.8%	● 13.3%	● 17.0%	● 18.0%	● 7.2%	● 4.3%	● 18.0%	● 7.2%

4.21 The results of this modelling focusing on small sites shows that the difference in viability between sites of 15 units and sites of 10 units, is marginal. However, below a the threshold of 10 units the level of affordable housing which can viably be delivered varies across all of the scenarios tested. If ERYC are considering reducing their policy threshold to below the PPS 3 suggested target of 15 units, this should be carefully considered in light of the above.

- 4.22 PPS3 indicates that adoption of a lower threshold than the national norm of 15 units should take into account not only viability issues but also the practicality of applying a lower threshold. In terms of practicality, consideration needs to be given to the benefits of applying a lower threshold in terms of securing more affordable housing than would otherwise be the case; versus the administrative costs of bringing a large number of schemes within the net of affordable housing policies and any unintended consequences such as reducing the overall delivery of housing, deterring developers and causing delays in the planning system.
- 4.23 In terms of the administrative costs of a reduced threshold, it is important that ERYC have indicated their acceptance that they will need to examine the viability of all schemes where the developers wishes to provide a lower level of affordable housing than set out in policy. Yet the time involved in assessing small schemes is not likely to be proportionately less than that involved in assessing larger schemes. The unit cost of administration per affordable housing unit secured is therefore likely to be greater for small schemes than for larger schemes.
- 4.24 Therefore, it is probable that there is a point at which the costs of reduced thresholds would outweigh the benefits given the staff time that a large number of small schemes will take up or the delay in the processing of applications. This applies even if schemes below the threshold could, on the basis of a viability assessment, make a contribution to affordable housing provision.
- 4.25 The administrative burden (in terms of additional staff time) would be compounded by the differential determination periods for minor and major applications. Under the 'Town and Country Planning (General Development Procedure) Order' authorities effectively have 8 weeks to determine a minor application (generally defined as 9 dwellings or fewer) and 13 weeks for a major application (generally defined as 10 or more dwellings). If the threshold were to be reduced below 10 units a number of schemes (say those between 7 and 9 units if the threshold were reduced to 7) would have to make an affordable housing contribution, yet they would still be defined as minor applications according to the 'Order'. These schemes would therefore be subject to the lower 8 week determination period, placing significant additional administrative burden on the authority in terms of having to deal with an application comprising affordable housing within the shorter determination period.
- 4.26 Consideration also needs to be given to the industry response to lowering the threshold on schemes. It is clear that in many areas there are small housebuilders/developers who will only undertake schemes that fall below the threshold for affordable housing provision. They simply do not wish to handle the additional complexity involved in delivery of affordable housing. Reducing thresholds therefore runs the risk that this section of the industry will withdraw from



the market or reduce the scale of activity to the detriment of competition and housing completions.

- 4.27 It is also important to consider the impact of single or small numbers of affordable housing units on a development. The administrative requirements for an RSL to manage a single unit in a single location often make this option unfeasible and a commuted sum for offsite affordable housing development is more appropriate.

## 5.0 Conclusion and Recommendations

- 5.1 The results of each of the market scenarios tested above shows that the East Riding of Yorkshire area has a range of varied markets, each of which are performing differently in the current market conditions. Based on analysis of all scenarios for the baseline position to the height of the market, the following conclusions can be drawn for each market area.
- 5.2 **Beverley:** Based upon the results presented in section 4 above, it is clear that dependent upon market area, size of site and house values, between 0 and 50% are deliverable. Consequently, DTZ would suggest ERYC consider a figure in the region of 20-25% affordable housing delivery on sites for Beverley and that approaches to tenure mix are flexible. This percentage represents an equitable position between the height of the market scenario and the current baseline based on the scenarios tested by DTZ. However, ERYC should be aware that in lower value areas of Beverley where revenues fall below £150 per square foot scheme viability will be marginal. Any revised policies for Beverley must have the flexibility to take into account individual site circumstances and it should be reiterated that this opinion has been reached based on a development assumption of no abnormal development costs. Any sites which have a significant requirement for infrastructure or abnormal development are likely to be capable of delivering significantly less affordable housing and should be analysed on a scheme by scheme basis.

Value Area	Baseline – Maximum AH Deliverable	Height of Market - Maximum AH Deliverable
High	Small sites only 30% AH split (33% SR / 66% Int)	Large Sites – 30% AH (66% SR / 33% Int) Small Sites – 50% AH (33% SR / 66% Int)
Medium	0%	Large Sites – 20% AH (66% SR / 33% Int) Small Sites – 30% AH (66% SR / 33% Int)
Low	0%	0%

- 5.3 **Bridlington:** Based on the results presented in section 5 above, it is apparent that Bridlington is one of the most diverse market areas within the ERY area. It has pockets of high value house prices and pockets of below average house prices and as such the viable delivery of affordable housing on new developments varies significantly. Based upon the results of this

study presented above, it is clear that in the high to mid market areas in the 'height of the market scenario', affordable housing percentages of between 20% and 40% are deliverable, dependent upon site size and location. However, in the current baseline conditions, no affordable housing can be viability delivered in this area. Consequently, DTZ would suggest ERYC consider a figure in the region of 15- 20% affordable housing delivery on site for Bridlington and that approaches to mix and tenure are flexible. This percentage represents an equitable position between the height of the market scenario and the current baseline and represents the cyclical structure of the housing market. Please see comments in Paragraph 10.2 which are relevant here in relation to individual scheme assessments and the consideration of abnormal development costs.

Value Area	Baseline – Maximum AH Deliverable	Height of Market - Maximum AH Deliverable
High	0%	Large Sites – 30% AH (66% SR / 33% Int) Small Sites – 40% AH (50% SR / 50% Int)
Medium	0%	Small Sites – 30% AH (33% SR / 66% Int)
Low	0%	0%

5.4 **Goole:** Goole is one of the lowest value areas of the East Riding of Yorkshire. Based upon the results in section 6, it is clear that even in the height of the market, the delivery of affordable housing viability is marginal in this area and in the majority of other scenarios tested including the baseline, very little residential development is deliverable without the requirement for additional funding or a reduction in land value from 20% of GDV to enable development to move forward. At the 'height of the market' scenario, affordable housing percentages of between 20% and 30% are deliverable, dependent upon site size and in high value area only. However, in mid and low value areas the delivery of any affordable housing will be difficult. Based on the results above, DTZ would suggest ERYC consider the drafting of any affordable housing policy for this area in considerable detail. The property prices in this area are such that they may be affordable to those in need. There is a fine balance between a scheme being viable and not viable in this area and therefore consideration of specific site requirements should be undertaken. Any sites which have a significant requirement for infrastructure or abnormal development costs are unlikely to be capable of delivering affordable housing and should be analysed on a scheme by scheme basis.



5.5 Despite this, if there is an identifiable housing need in this area than the ERYC is statutorily obligated to aim to deliver affordable homes wherever possible. It may be through more intuitive development agreements, the development of Local Authority owned land or the Authority developing its own housing stock that the delivery of the required housing need could be delivered outside of the section 106 model in this market area.

Value Area	Baseline – Maximum AH Deliverable	Height of Market - Maximum AH Deliverable
High	0%	Large Sites – 20% AH (66% SR / 33% Int) Small Sites – 40% AH (33% SR / 66% Int)
Medium	0%	0%
Low	0%	0%

5.5 **Holderness:** Based upon the results above, it is clear that in high market areas, in this 'height of the market' scenario, affordable housing percentages of between 20% and 30% are deliverable, dependent upon site size and location. However, in mid and low value areas the delivery of any affordable housing will be difficult. Consequently, DTZ would suggest ERYC consider the drafting of an affordable housing policy for this area in considerable detail. The property prices in this area are such that they may be affordable to those in need. There is a fine balance between a scheme being viable and no viable in this area and therefore consideration of specific site requirements should be undertaken. Any sites which have a significant requirement for infrastructure or abnormal development costs are unlikely to be capable of delivering affordable housing and should be analysed on a scheme by scheme basis. Based on the results above, DTZ would suggest ERYC consider a figure in the region of 15% affordable housing delivery on sites within Holderness and that approaches to tenure mix are flexible.

Value Area	Baseline – Maximum AH Deliverable	Height of Market - Maximum AH Deliverable
High	0%	Large Sites – 20% AH (66% SR / 33% Int) Small Sites – 30% AH (66% SR / 33% Int)
Medium	0%	0%
Low	0%	0%

5.6 **Hull Borders.** Based upon the results of this study presented above, it is clear that in the high to mid market areas in this 'height of the market scenario', affordable housing percentages of between 20% and 50% are deliverable, dependent upon site size and location. However, in the current baseline 30% affordable housing is deliverable on small sites in high value areas but no other viability was seen. Accordingly, DTZ would suggest ERYC consider a figure in the region of 20-25% affordable housing delivery on site for Hull Borders and that approaches to mix and tenure are flexible. This percentage represents an equitable position between the height of the market scenario and the current baseline recognising the cyclical nature of the housing market. Please see comments in Paragraph 10.2 which are relevant here in relation to individual scheme assessments and the consideration of abnormal development costs.

Value Area	Baseline – Maximum AH Deliverable	Height of Market - Maximum AH Deliverable
High	Large Sites – 0% Small Sites – 30% AH (33% SR / 66% Int)	Large Sites – 50% AH (50% SR / 50% Int) Small Sites – 50% AH (50% SR / 50% Int)
Medium	0%	Small Sites – 20% AH (33% SR / 66% Int)
Low	0%	0%

5.7 **Wolds.** Based upon the results of this study presented above, it is clear that in the high to mid market areas in this 'height of the market scenario', affordable housing percentages of between 20% and 50% are deliverable, dependent upon site size and location. However, in the current baseline conditions 30% affordable housing is deliverable on small sites in high value areas but no other viability was seen. Accordingly, DTZ would suggest ERYC consider a figure in the region of 25% affordable housing delivery on sites in the Wolds and that approaches to mix and tenure are flexible. This percentage represents an equitable position between the height of the market scenario and the current baseline recognising the cyclical nature of the housing market. Please see comments in Paragraph 10.2 which are relevant here in relation to individual scheme assessments and the consideration of abnormal development costs.

Value Area	Baseline – Maximum AH Deliverable	Height of Market - Maximum AH Deliverable
High	Large Sites – 0% Small Sites – 30% AH (33% SR / 66% Int)	Large Sites – 50% AH (33% SR / 66% Int) Small Sites – 50% AH (66% SR / 33% Int)
Medium	0%	Small Sites – 20% AH (33% SR / 66% Int)
Low	0%	0%

- 5.8 From the study undertaken by DTZ a diverse range of market areas and viability has been identified based on differing market scenarios. We consider there would be merit in ERYC moving forward with an affordable housing policy which has different percentages of affordable housing requirements for different parts of the East Riding of Yorkshire area. The results are too varied to suggest a blanket policy for the whole area would be an appropriate basis upon which to move forward, especially in the current baseline market position.
- 5.9 The lower value areas should be given particular consideration as in the current market, conditions delivering any affordable housing viably and without grant is extremely difficult. The range of viability varies significantly in these areas, dependent upon revenues achieved and market conditions. In order to prevent stalling these markets artificially by requiring affordable housing, consideration should be given to the affordability of the achieved values on site and whether these are actually accessible to purchasers in the market without the need for further deductions. The delivery of any social rented product in this area would, in the short term, most likely require a specialist provider, grant funding or the delivery of development land at a value significantly below the target set for this study. On local authority owned land or gifted land, where the residual land value will be substantially below market value, more affordable housing will be deliverable.
- 5.10 Tenure requirement within the policy should also be considered as it is clear that the tenure split required drives development viability. Typically where lower levels of social rented tenures are required, a higher percentage of affordable housing could be delivered.
- 5.11 ERYC should also consider the percentage splits attributed to this model. DTZ have undertaken this analysis assuming 50% as the threshold percentage at which a policy could equitably be brought forward. However, other local authorities have adopted an approach which considers any level of viability to be the basis upon which to set policy, as their housing need is so high, any opportunity to capture affordable housing delivery is taken. In practice,



this may be difficult to justify in an Examination in Public Enquiry as a reasonable position to adopt in setting policy. However, ERYC should consider the impact of this threshold on the delivery of affordable housing across the area.

- 5.12 Throughout this report, DTZ have provided comments on conclusions based upon the number of schemes which are viable. However, the relationship to the number of units each of these schemes deliver is also provided. The number of units delivered by a scheme is an interesting comparison as it shows what housing numbers ERYC are likely to deliver based on the analysis of scheme viability. In many cases, the delivery of total number of units is lower than the number of schemes which are viable. This is particularly relevant when we consider that a large percentage of the schemes which currently deliver affordable housing viably are small schemes in High Value areas. Whilst 50% of the schemes may deliver 20% affordable housing viably, it is likely that a much lower percentage of total number of units tested will be delivered.
- 5.13 The results of the modelling show that typically, small schemes are more viable in the current market conditions. This is due to the extended development periods and a slowdown in sales rates. Lengthening of the cashflow (the time in which it takes to sell the units once they are constructed) has a detrimental effect on IRR in a circumstance where land value is held as a constant (as is the case in this modelling). The increase in time taken to sell units, increase the risk to the developer whilst money they have spent constructing the units is tied. This is more noticeable on large developments where there are a large number of units to sell and as such the performance on larger sites in current market circumstances is poor. This reflects what is being seen in the development industry nationally Housebuilders preferences at the moment are to acquire smaller lot sizes with phased payments to minimise their risks and exposure to a slow sales market driven by the lack of available mortgage funding and more stringent borrowing requirements from lenders.

